



Metro Nashville DISTRICT ENERGY SYSTEM

A PUBLICATION OF METRO NASHVILLE DISTRICT ENERGY SYSTEM

Spring 2008

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Metro DES Customer Meeting Recap

At a recent customer meeting, Metro DES management made a financial presentation that reviewed and compared unit costs from FY07 to FY08 and capital projects for FY07 and FY08.

The meeting, held on March 20, took place in the conference room at the Nashville Downtown Partnership, located at the corner of Fourth Avenue and Commerce Street. The purpose of the meeting was to give DES customers a chance to learn more about the services DES provides, and to gain important information about their partnership with DES.

The meeting also included a review of the FY08 budget and a proposed FY09 budget, a discussion about the environmental impact of DES, a review of operations monitoring and a discussion about customer contract capacity.

If customers have any questions

General Manager's Corner

By: Tim Hestle

How is the Nashville District Energy System like a high-performance stock car?

Anyone who follows NASCAR, currently the largest spectator sport in the country, realizes that it takes a lot of preparation to get a car ready for a race. Chassis have to be set up, engines have to be tuned, tires have to be selected and aired up to just the right pressure to achieve optimum performance. When all these things are done, and done correctly, chances are the car is going to be reliable. The rest is up to the driver.



Tim Hestle

In preparation for the summer cooling season — our “Sunday race” — maintenance activities in the DES electrical switch-gear yard have been completed. We’ve inspected the chillers and associated equipment, cleaned and eddy-current-tested the tubes, checked the oil and refrigerant levels, and tuned the controls so that we can achieve optimum performance from our equipment. The Constellation maintenance staff is like a NASCAR pit crew, making sure the equipment is ready. Our operations staff is our driver. We have a winning history over the past four and a half years. Our reliability for delivering efficient, dependable service to the district energy system’s customers has been more than 99 percent.

Even if you are not a racing enthusiast, all of us have experience with our own automobiles. As they get older, they tend to need more care and attention to keep them running reliably. It is very important to change the oil regularly, check all of the engine fluids, check the brakes and tires, etc. When these things are not done, vehicles start costing more to operate. For instance, when something as simple as making sure we have the correct tire pressure is not done, it causes our vehicle’s fuel economy to diminish and our tires to wear out faster. With the increasing cost of gasoline, and everything else for that matter, it is very important that these things are maintained.

Similarly, many downtown buildings have older air-handling units. In order for building owners or tenants to get reliable, efficient cooling from their AHUs, they need to be maintained. Coils need to be cleaned periodically, filters need to be changed monthly and units should be balanced to achieve optimum performance. Prolonging the life and performance of equipment is a bottom-line issue for building owners and managers these days. Let’s face it, equipment does wear out and get outdated. Sometimes we have to buy a new car, and sometimes building owners are going to have to replace or upgrade their heating, ventilation and air conditioning systems. I suggest, when this time

about the topics that were discussed at the meeting, they are encouraged to call Harry Ragsdale, the project administrator for Metro DES, at (615) 264-2611.

Customer Spotlight: LP Field



Since 1999, more than 68,000 Titans fans have filed into LP Field each game to cheer on Nashville's beloved NFL team. From the hot days of late August to the cold, rainy afternoons of December, LP Field is Middle Tennessee's most popular attraction on most Sundays at noon.

Completed in 1999, the stadium was originally named Adelphia Coliseum, and later renamed The Coliseum in 2002. In 2006, Nashville-based Louisiana-Pacific Corp. purchased the naming rights, changing the name to LP Field. Louisiana-Pacific is a leading manufacturer and distributor of building products.

DES has provided cooling services inside the 68,798-seat stadium since we began operations in 2003. Prior to that time, the stadium relied on the old Nashville Thermal Transfer Corporation for cooling services.

The stadium also plays host to more than 100 other events every year, including the Gaylord Hotels Music City Bowl, Tennessee State University home football games,

comes, an energy management system (EMS) be included as an upgrade. You would be surprised at the potential energy savings that can be achieved with an EMS.

In every race, cars get bumped and scraped. The ones that wreck seldom, if ever, cross the finish line. We may experience a bump or two, but we will cross the finish line in good shape. I am confident we will have another winning cooling season this summer.

Solar Power Is Becoming Big Business

As the country moves toward "Green Energy," solar power is becoming a big business. Constellation Energy Projects & Service Group, the operator of Nashville's Energy Generation Facility, recently announced its entry into the United States solar power market, which offers some interesting considerations as we think about Nashville's future power needs.

Constellation Energy has installed and will own and maintain a 588-kilowatt (kW) roof-mounted solar PV system at Alcoa Building and Construction Systems' Kawneer manufacturing facility in Visalia, Calif. It will sell the power to Alcoa. The power generated by the 4,300 Uni-Solar panels will provide approximately 80 percent of the 200,000-square-foot facility's peak electricity needs. Constellation Energy also installed 200 solar light tubes to supplement artificial lighting in the facility.

In September 2007, Constellation Energy also announced an agreement with General Motors to construct an 870kW solar system at GM's 300,000-square-foot service and parts operations warehouse in Fontana, Calif. Constellation Energy will own and operate the system and sell power to GM under a 25-year power purchase agreement. The 6,400 Uni-Solar panels will supply nearly half of the power requirements at the warehouse and reduce electricity costs approximately 10 percent.

Constellation Energy's move into California's solar market comes at a good time. California is dominating the "Green Energy" scene with 90 percent of the U.S. solar market. Since 1998, \$230 million in rebates have been spent in California, and the state now has 62 megawatts (mW) of installed capacity, representing more than 15,000 installations, according to the California Energy Commission.

With the new California Solar Initiative, \$3.2 billion will be invested in the industry by 2016. Gov. Arnold Schwarzenegger's goal is to have 3,000mW installed by 2020. Underlying this popularity throughout the U.S., beyond the availability of state and federal tax incentives of course, is the drive to cut global warming and to increase reliance on renewable resources in the interest of national security. Thirty-six states offer incentives or rebates to install solar systems, but none have invested the money that California has.

What has given the solar business the biggest boost is the commercial tax credit passed as part of the 2005 Energy Policy Act. Given that it's the first solar tax credit in 20 years, it has expanded markets for all solar technologies. Coupled with California's deep pockets for incentives and design of the new California Solar Initiative, solar investment dollars are no longer dependent on a customer's ability to pay.

Since nonprofits, such as government offices, schools and universities, can't

Olympic soccer qualifying games, the CMA Music Festival, business meetings and receptions.

Dempsey Henderson, the facility manager at LP Field, has worked at the stadium since its opening in 1999, and has been very satisfied with the service DES has provided.

Henderson explained the importance of cooling in a facility like LP Field. "The stadium is more than just a field and concession stands. We have more than 175 suites, two club areas, media facilities, several administrative offices, a ticket office and the concession areas, which also use DES' services for refrigeration."

"DES is also very good about meeting with us to discuss ways to improve the service they provide. We've met several times to discuss new innovations, and they installed an in-house metering service that's more efficient."

LP Field doesn't have a large-scale backup system for cooling, which means the service that DES provides is vital for day-to-day operations at the stadium.

take advantage of the federal tax credits, energy service companies and financial institutions have jumped in and are signing power purchase agreements to own and maintain the system, and sell the electricity to the customer at a price discounted off the utility tariff. The result is that there are much larger installations, and for-profit businesses are jumping in and signing power purchase agreements as well. This has not yet happened in our region, but as green power grows in popularity, it could be indicative of things to come.

*Excerpts from **Distributed Energy** publication – author Lyn Corum*

Employee Spotlight: Instrumentation and Electrical Supervisor Andy Street

Most people think of the big boilers and chillers when they think of how DES manages to heat and cool so many downtown buildings, but the real workhorse at the energy generation facility is electricity. Without power, provided by Nashville Electric Service, the boilers and chillers that downtown workers and residents rely on would be useless.



As the instrumentation and electrical supervisor at DES, Andy Street recognizes more than anyone the importance of electricity at the DES plant. Street is responsible for the day-to-day maintenance and metering of the facility's electrical controls and routine checks on energy usage. Additionally, he oversees the monthly data analysis reports that are submitted to Metro government, indicating the overall performance and efficiency of DES' service.

Street, an employee of Constellation Energy Projects & Services Group (CEPS), the contractor that manages DES for Metro, began working at the plant in 2003 as an electrician. He was promoted to instrumentation and electrical supervisor in 2005. Prior to joining CEPS, Street worked for Travis Electric, where he oversaw electrical controls on construction projects.

"My job at the DES is very different from my previous job in construction," Street said. "In construction there's a clear start and end point for a project. Maintenance, on the other hand, is a never-ending process. We're fortunate to have a practically new facility and new equipment. Our mentality is to keep everything running like it's brand-new."

Street, a native of Kingston Springs, lives in Clarksville with his wife, Diane, and younger daughter, Brittany, who is a senior at Clarksville High School. His older daughter, Lauren, lives in Murfreesboro, where she is attending Middle Tennessee State University.

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